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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,280	11/24/2003	Larry E. Curtis	SPL-45/47181-00282USPT	6392

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EXAMINER

LA, ANH V

ART UNIT PAPER NUMBER

2636

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/722,280

Applicant(s)

LARRY E. CURTIS

Examiner

Anh V. La

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/13/04, 03/11/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 11-15, 23-29, 31-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Dickmander.

Regarding claims 1, 23, 31, Dickmander discloses a system/method to determine the direction of a disturbance event in a power distribution system comprising a power feed bus (figure 1), a circuit monitor 22, the circuit monitor being responsive to detect the disturbance event by comparing a disturbance event signal with a pre-event signal on a plurality of time scales (abstract, column 2, lines 1-25, col. 4, lines 1-44).

Regarding claims 2, 24, Dickmander discloses the time scales including a cycle-by-cycle time scale.

Regarding claims 3, 25, Dickmander discloses the cycle-by-cycle time scale being the time for the signal to go through one full cycle (abstract col. 2, lines 1-25, col. 4, lines 1-44).

Regarding claims 4, 26, Dickmander discloses a predetermined portion of the cycle (abstract col. 2, lines 1-25, col. 4, lines 1-44).

Regarding claims 5, 27, Dickmander discloses an individual point of the cycle (abstract col. 2, lines 1-25, col. 4, lines 1-44).

Regarding claims 6, 28, Dickmander discloses the circuit monitor computing a confidence factor (col. 4, lines 1-40).

Regarding claim 7, Dickmander discloses an alarm channel 60.

Regarding claim 8, Dickmander discloses at least one coincident channel.

Regarding claim 9, Dickmander discloses measuring a voltage disturbance, a current disturbance, and a power disturbance (figure 1).

Regarding claims 11-13, Dickmander discloses an alarm channel 60.

Regarding claim 14, Dickmander discloses a system to determine the direction of a disturbance event in a power distribution system comprising a power feed bus (figure 1), a circuit monitor 22, the circuit monitor determining the direction of the disturbance event and computing a confidence factor (abstract, column 2, lines 1-25, col. 4, lines 1-44).

Regarding claims 15, 32, Dickmander discloses an agreement of voltage, current and power disturbance events (figure 1).

Regarding claim 29, Dickmander discloses a single circuit monitor (figure 1).

3. Claims 33-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Levert.

Regarding claim 33, Levert discloses a method comprising combining confidence values from a plurality of networked metering location in a power system and expressing a confidence in an analysis (figure 1).

Regarding claim 34, Levert discloses an agreement of voltage, current and power disturbance events (figure 2).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dickmander.

Regarding claim 10, Dickmander discloses all the claimed subject matter as set forth above in the rejection of claim 1, and further discloses the monitor measuring a signal to noise ratio and registering a disturbance event, but does not disclose the ratio being greater than 2. However, it would have been obvious to have the ratio being greater than 2 since it is not inventive to discover the optimum or workable ranges by routine experimentation.

6. Claims 16-22, 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickmander in view of Levert.

Regarding claims 16, 30, Dickmander discloses a power feed bus (figure 1), a circuit monitoring 22, each of the branch circuits providing electrical signal to a load, the monitor independently detecting a disturbance event and calculating a confidence factor (abstract, column 2, lines 1-25, col. 4, lines 1-44). Dickmander does not disclose a plurality of the branch circuits, each of the branch circuits having a branch circuit monitor. Levert teaches a plurality of the branch circuits, each of the branch circuits

Art Unit: 2636

having a branch circuit monitor (figure 1). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a plurality of the branch circuits, each of the branch circuits having a branch circuit monitor to the system of Dickmander as taught by Levert for the purpose of effectively determining a disturbance event.

Regarding claim 17, Levert discloses combining the confidence factors (fig. 2).

Regarding claims 18-19, Levert discloses calculating the confidence factors by one of the monitors (fig. 2).

Regarding claim 20, Dickmander discloses a power feed bus circuit monitor (abstract, column 2, lines 1-25, col. 4, lines 1-44).

Regarding claims 21-22, Dickmander discloses calculating a system confidence factor (abstract, column 2, lines 1-25, col. 4, lines 1-44).

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Driscoll and Dickens teach power line disturbance detector circuits.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh V. La whose telephone number is (571) 272-2970. The examiner can normally be reached on Mon-Fri from 9:30am to 6:00pm.

Art Unit: 2636

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**ANH V. LA**  
**PRIMARY EXAMINER**

Anh V La  
Primary Examiner  
Art Unit 2636

AI  
September 08, 2005